



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,428	07/07/2003	James P. Davidowitz	14846-97	7410

28221 7590 12/08/2009
PATENT DOCKET ADMINISTRATOR
LOWENSTEIN SANDLER PC
65 LIVINGSTON AVENUE
ROSELAND, NJ 07068

EXAMINER

VYAS, ABHISHEK

ART UNIT	PAPER NUMBER
----------	--------------

3691

MAIL DATE	DELIVERY MODE
-----------	---------------

12/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/615,428	Applicant(s) DAVIDOWITZ ET AL.	
	Examiner ABHISHEK VYAS	Art Unit 3691	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. This action is in reply to the amendments and remarks filed on 08/17/2009.
2. Claims 1, 3, 4, 5, 9, 11-13, and 17 have been amended.
3. No new claims have been added.
4. No claims have been cancelled.
5. Claims 1-18 are currently pending and have been examined.
6. Claims 1-18 are rejected.
7. This is a FINAL rejection.

Response to Arguments

8. Applicant's arguments regarding the 35 USC 101 rejections have been fully considered and they are persuasive. The rejection in the previous office action is withdrawn.
9. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
11. Claims 1, 9, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
12. Claims 1, 9 and 17 recite "at least one domestic external market and at least one foreign external market" the claims further recite "(h) ...in a foreign market..." "(i)...in a domestic market..." it is unclear as to what the meets and bounds are for a domestic external market and a foreign

external market. Is the domestic external market, a different exchange on which the security is traded? Is the foreign external market another foreign exchange outside of the prior recited foreign market? It is unclear where the order execution server is coupled and in which markets are the trades being initiated.

- 13.** The dependent claims are rejected on the basis of the rejected independent claims.

Claim Rejections - 35 USC § 103

- 14.** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 15. Claims 1, 3-5, 7-9, 11-13, 15-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al (herein after Burns) United States Patent No. : 7,243,083 in view of Gerhard United States Patent No.: 6,852,683 B1 in further view of Tsagarakis et al (herein after Tsagarakis) United States Patent Application Publication No.: 2002/0087455 and Waddell United States Patent No.: 7,412,415

- 16. As per claims 1, 5, 9, 13, 17 and 18;** Burns discloses the following limitations:

- (c) receive spread parameters pertaining to a relationship between two or more securities in a spread in one or more markets from the computer-based client station; (see at least Burns column 1, lines 34-41; column 2, lines 39-51; column 4, lines 1-12).
- (e) determine whether the market data falls within the spread parameters; and (see at least Burns column 5, lines 33-40; column 2, lines 39-51; column 4, lines 1-12, 16-23 and 39-46).
- (k) transmit execution data to the spread database; (iv) and wherein the spread database is coupled to the processor and the order execution server, and is configured to store

Art Unit: 3691

information relating to the spread received from the order execution server and the spread engine (see Burns figure 8, column 14, lines 41-60)

Burns does not explicitly disclose the following limitations, Tsagarakis however, teaches the limitations as follows:

- (a) transmit information relating to the spread to a spread; and (b) display information relating to the spread received from the processor; (Tsagarakis 45, 57, 62)
- (iii) the processor is running a spread engine and is coupled to the computer-based client station, the order execution server, the spread database, and at least one market data feed, wherein the spread engine is configured to: (Tsagarakis paragraphs 57, 62, 67)
- (d) process market data relating to the two or more securities received from the market data feed; and (Tsagarakis 53)
- (f) transmit orders to the order execution server; (Tsagarakis 53 and 55)
- (iii) the order execution server is coupled to the processor, the spread database, at least one domestic external market and at least one foreign external market (Tsagarakis 58 and 60) and is configured to: (g) received orders from the processor; (Tsagarakis 53)
- (h) initiate a first order in a foreign first market for a first security of the spread in a foreign currency, when the market data falls within one or more of the spread parameters; (Tsagarakis 31-33)

Burns does not explicitly disclose the following limitations. Waddell, however, teaches the limitation as follows:

- (i) initiate a second order in a domestic second market for a second security of the spread, when the market data falls within one or more of the spread parameters, whereby the second order and the first order are at a selected ratio to reduce the risk of adverse price movements in the first security; and (Waddell column 9, lines 48-55; column 10, lines 16-25, Table 3-4; column 13, lines 20-40)

Burns does not specifically disclose the limitation below. Gerhard, however, teaches the limitations as follows:

- (j) initiate an FX Order to offset foreign exchange exposure resulting from the first order in the foreign market; (see at least Gerhard column 1, lines 25-43; column 3, lines 1-25; column 4, lines 1-6 and 35-48; column 6, lines 2-29).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have expanded the system and method of Burns and Potter to include initiating orders in two or more markets and placing an FX order to hedge against currency exposure. One would be motivated to do so to prevent exposure loss and gain profits from various arbitrage opportunities between the various currencies of the world and taking advantage of the disparities between interest rates, exchange rates and investment yields (see at least Gerhard column 1, lines 40-43; column 2, lines 60-64; column 6, lines 2-29; Burns column 1, lines 34-50; column 4, lines 26-34; Potter column 1, lines 50-54; column 5, lines 60-61) Also see (at least Burns column 4, lines 38-51 and 55-61; column 7, lines 34-40; column 8, Equation 2; column 9, lines 7-11).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have specifically incorporated a first order of a first security and a second order of a second security in separate markets to facilitate the best available spread and pass on several cost advantages to the customer (see at least Tsagarakis paragraphs 0042 and 0044).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the teachings of Burns and Tsagarkis with Waddell to specifically teach pair trading. One would be motivated to do so invest in volatile market without being affected by the market, because the securities of the pair would be valued differently. Pair trading is usually a market neutral strategy (Waddell column 1 lines 16-26). Further the references are analogous and therefore it would be obvious to combine them as Waddell also suggests "the pair trading engine initiating orders to external markets". Broadly interpreted this reads on the limitations of the claims as presented. An external market could also be interpreted as a foreign market. Tsagarakis further elaborates on

Art Unit: 3691

buying or selling a security in a foreign market along with the associated routing and clearing functions (paragraph 37) and customers usually place orders based on the price in the native currency of the foreign country and a price converted from the native foreign currency to a native domestic currency (Tsagarakis 31). Therefore the limitations are obvious over the combination of Burns, Gerhard, Tsagarakis and Waddell. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

17. **As per claim 3, 7, 11 and 15**, Burns discloses the following limitation:

- convert the market data related to one or more securities in the spread to a certain currency identified in the spread parameters for the spread (see at least Burns column 6, lines 54-59).

18. **As per claim 4, 8, 12 and 16**, Burns discloses the following limitation:

- initiate the first order only where the market data related to one or more securities in the spread pass certain rule checks (see at least Burns column 7, lines 41-52).

19. **As per claim 18**, Burns discloses the following limitation:

- bid/offer size; round lot; last/bid tick direction; markets(s) open; depth of market; and position limits (see at least Burns column 5, lines 33-42, 52-57; column 15, lines 1-8).

20. **Claims 2, 6, 10, 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al.

Gerhard and Tsagarakis as applied to claim 1 above and in further view of Raykhman United States Patent No.: 7,171,386 B1.

21. **As per claims 2, 6, 10, 14;** Burns and Potter disclose a trading system of two or more securities.

Burns and Potter do not disclose the following limitations. Raykhman, however, discloses the limitations as follows:

- the first order is a limit order and the second order is a market order, (see at least Raykhman column 3 lines 15-17; column 5, lines 35-39).
- the second order is initiated following confirmation of the first order (see at least Raykhman column 16, lines 50-63; column 18, lines 10-18).

It would have been obvious to one of ordinary skill in the art at the time of the invention to expand the system of Burns and Potter to specify the market orders and limit orders and to place the orders in order. One would be motivated to do so to provide fair and prompt execution of orders that would maximize the hedge against exposure (see at least Raykhman column 8, lines 43-46; lines 54-65).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abhishek Vyas whose telephone number is 571-270-1836. The examiner can normally be reached on 7:30am-5:00pm EST Mon-Thur, ALT Friday OFF.

Art Unit: 3691

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached on 571-272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A. V.
Examiner, Art Unit 3691

/Alexander Kalinowski/

Supervisory Patent Examiner, Art Unit 3691